

## Patent Claims

1. A multilayer, biaxially oriented polypropylene film comprising a base layer and at least one heat-sealable top layer, which comprises in its base layer a combination of resin and wax, wherein the base layer comprises a resin having a mean molecular weight  $M_w$  of from 600 to 1500 and a wax having a mean molecular weight  $M_n$  of from 200 to 700.
2. A polypropylene film as claimed in claim 1, wherein the n-heptane-insoluble content of the polypropylene of the base layer has a chain isotacticity index, measured by means of  $^{13}\text{C}$ -NMR spectroscopy, of at least 95%.
3. A polypropylene film as claimed in claim 1 and/or 2, wherein the base layer comprises a polypropylene whose  $M_w/M_n$  is from 1 to 10.
4. A polypropylene film as claimed in one or more of claims 1 to 3, wherein the propylene polymer of the base layer has been peroxidically degraded or has been prepared by means of a metallocene catalyst.
5. A polypropylene film as claimed in one or more of claims 1 to 4, which comprises, as resin, an unhydrogenated styrene polymer, a methylstyrene-styrene copolymer, a pentadiene or cyclopentadiene copolymer, an  $\alpha$ - or  $\beta$ -pinene polymer, colophony or colophony derivatives or terpene polymers and hydrogenated compounds thereof or a hydrogenated  $\alpha$ -methylstyrene-vinyltoluene copolymer or if desired mixtures thereof.
6. A polypropylene film as claimed in one or more of claims 1 to 5, wherein the hydrocarbon resin is present in an amount of from 1 to 15% by weight, based on the weight of the base layer.

7. A polypropylene film as claimed in one or more of claims 1 to 6, wherein the wax is present in an amount of from 1 to 10% by weight, based on the weight of the base layer.
- 5 8. A polypropylene film as claimed in one or more of claims 1 to 7, wherein the wax is a polyethylene wax having an Mw/Mn of from 1 to 2.
- 10 9. A polypropylene film as claimed in one or more of claims 1 to 8, wherein the wax is a macrocrystalline paraffin wax.
- 10 10. A polypropylene film as claimed in one or more of claims 1 to 9, which has a heat-sealable top layer of  $\alpha$ -olefinic polymers on both sides.
- 15 11. A polypropylene film as claimed in one or more of claims 1 to 10, wherein the polymer of the top layer(s) has been peroxidically degraded and the degradation factor is in the range from 3 to 15, preferably from 6 to 10.
- 20 12. A polypropylene film as claimed in one or more of claims 1 to 11, wherein an interlayer of  $\alpha$ -olefinic polymers has been applied to one or both sides between the base layer and the top layer(s).
- 25 13. A polypropylene film as claimed in one or more of claims 1 to 12, wherein the thickness of the film is from 4 to 60  $\mu\text{m}$ , in particular from 5 to 30  $\mu\text{m}$  and preferably from 6 to 25  $\mu\text{m}$ , where the base layer makes up from about 40 to 60% of the total thickness.
- 30 14. A polypropylene film as claimed in one or more of claims 1 to 13, wherein the base layer comprises an antistatic, preferably a tertiary aliphatic amine.
- 35 15. A polypropylene film as claimed in one or more of claims 1 to 14, wherein the top layer(s) comprises (comprise) a lubricant, preferably polydimethylsiloxane, and an antiblocking agent, preferably  $\text{SiO}_2$ .

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- Sub B5
- Sub 10  
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16. A polypropylene film as claimed in one or more of claims 1 to 15, wherein all layers of the film comprise neutralizer and stabilizer.
17. A process for the production of a polypropylene film as claimed in claim 1, wherein the orientation in the longitudinal direction is carried out with a longitudinal stretching ratio of from 5:1 to 9:1 and in the transverse direction with a transverse stretching ratio of from 5:1 to 10:1.
18. The use of a polypropylene film as claimed in one or more of claims 1 to 16 as a packaging film, preferably a cigarette wrapping film.
19. The use of a mixture of polypropylene and resin having a mean molecular weight Mw of from 600 to 1500 and wax having a mean molecular weight Mn of from 200 to 700 in the production of oriented polypropylene films for improving the water vapor barrier action.
- Sub B6